

1. Given $x^2y - 2y + 5 = 0$

- Write an equation of the line tangent when $x = 1$.
- Find all points where the curve is horizontal, if any.
- Find all points where the curve is vertical, if any.

2. Given $y^3 + 6 = xy$

- Write an equation of the line tangent when $y = 2$.
- Find all points where the curve is horizontal, if any.
- Find all points where the curve is vertical, if any.